

Criteria for the Development of Methodological Competence of Future Teachers of Technology

Nosirov Nodirbek Valijonovich

Independent researcher, Fergana State University, Fergana, Uzbekistan
nnosirov79@mail.ru

Abstract: In the course of education, future teachers are given ample opportunities to develop methodical competence. Effective use of available opportunities serves to achieve the expected results in this regard. The fact that science teachers have criteria for evaluating the level of development of relevant qualities ensures the consistency and effectiveness of practical actions to develop methodical competence in future students. The article talks about the criteria for evaluating the development of the methodological competence of future students.

Keywords: students, development of methodical, professional-methodical competence, assessment, criterion, evaluative criteria

Introduction

An information and educational environment has been established in the Republic aimed at the formation of methodological competence of future teachers of Technology Science. With a material and technical base, regulatory legal acts were developed that ensure the development of professional qualities. In the "Strategy of Actions" for the further development of the Republic of Uzbekistan, "stimulating research and innovation activities, creating effective mechanisms for the implementation of scientific and innovation achievements" was defined as a priority task [1-3]. This creates conditions for improvement and introduction of methods and means of formation of professional qualities of future technology teachers.

Literature review

The Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "On the Strategy of Actions for the Development of Uzbekistan in 2017-2021" No. PF-4947 also discussed the training of future teachers. In this field, Uzbek scientists N. Muslimov, O. Koysinov, Sh. Abdurakhmanov, Q. Abdullaeva, N. Gaipovalar, in the methodical manual entitled "Technologies of formation of methodical competence of future teachers of vocational education", their opinions on the technologies of formation of methodical competence of future technology science teachers stated [4-9].

Methodology

It is important to integrate the professional qualities of future technology teachers (motivational, constructive, organizational, managerial, hardworking, disciplined, production-technological, etc.), the characteristics of operational-technological functions into the principles of pedagogical reflection, and mutual educational and practical situations. In the national personnel training program, the need to introduce and master advanced pedagogical technologies into the education system was repeated many times. As long as we are mobilizing all our strength and capabilities so that our nation is not inferior to anyone else in the world, and our children live stronger, more educated, wiser and certainly happier than us, in this regard, the issue of spiritual education is undoubted of incomparable importance [10-14].

Results and discussion

Among the factors that are effective in the development of methodological competence of future technology teachers, we can recognize the following:

- communication of students with creators, including on a large scale;
- the presence of the student environment as an image that allows for imitation;
- that the interaction between parents and children is based on a democratic style;
- give students the opportunity to express their opinion;
- active, practical position of students;
- teach the student to work from a very young age;
- to consistently develop the student's creative qualities by ensuring membership in various circles;
- to allow the student to feel the joy of self-awareness through personal experience, travel;
- supporting the student's research activities.

Critical thinking requires students to draw on multiple ideas when completing assignments, problems, and tasks. In contrast, one-sided thinking refers to being based on only one true idea. In observation, one cannot deny one-sided and many-sided thinking on the matter. Therefore, one and all-round thinking is equally important in the formation of methodical competence [15-18]. That is, when completing the task, and solving the problem, the student looks for several options for the solution and then stops at the only correct solution that guarantees the most optimal result. In our opinion, in the development of methodical competence in a future teacher, he should be able to think, summarize information, and analyze, it is advisable to get used to making the right decision in various complex situations from a young age. For this, it is necessary that the future teacher of technology can express an initial interpretation without focusing on analysis in the process of thinking. This is the aim of the interactive "brainstorming" method in the educational process. According to the specified requirement, learners understand the essence of the process, object, subject or event based on the concepts of denotation (directly relevant), but connotation terms (for example, when evaluating a lion - fearless, brave, rabbit when talking about a coward, when talking about a wolf - greedy, when talking about a swan - loyalty are used). For this, it is necessary that the future teacher of technology can express an initial interpretation without focusing on analysis in the process of thinking. This is the aim of the interactive "brainstorming" method in the educational process. According to the specified requirement, learners understand the essence of the process, object, subject or event based on the concepts of denotation (directly relevant), but connotation terms (for example, when evaluating a lion - fearless, brave, rabbit when talking about a coward, when talking about a wolf - greedy, when talking about a swan - loyalty are used). For this, it is necessary that the future teacher of technology can express an initial interpretation without focusing on analysis in the process of thinking [18-21]. This is the aim of the interactive "brainstorming" method in the educational process. According to the specified requirement, learners understand the essence of the process, object, subject or event based on the concepts of denotation (directly relevant), but connotation terms (for example, when evaluating a lion - fearless, brave, rabbit when talking about a coward, when talking about a wolf - greedy, when talking about a swan - loyalty are used).

Special psychological training is required to develop methodical competence. However, if the future technology teacher considers himself lucky, this confidence will turn him into a generator of new ideas. Fear, hesitation and negative subconscious guidance serve to deny creative ideas [2].

Accordingly, although future technology science teachers rely on reality and denotation in their attitude to the assessment object according to their level of knowledge and life experience, a comprehensive approach to finding a solution to a problem consistently, different encouraging

them to find solution options, encouraging them to justify their opinion about the solution, forming the problem of being able to say at least five logical opinions about the solution of the problem will help them to develop methodological competence.

The development of methodical competence in the future of technology science teachers of academic subjects has a special place. After all, regardless of whether they are of a social, humanitarian, natural or practical nature, the assignments given to students in the classes organized by academic subjects will help them to think, guide, and think logically, the subject being studied encourages them to put forward original ideas.

N. Muslimov, O. Koysinov, Sh. Based on the views of researchers such as Abdurakhmanov, Q.Abdullaeva, and N.Gaipovalar, attention was paid to the study of the system of actions that organizes the technologies of forming the methodical competence of future technology teachers.

According to the results of the study, it was concluded that the following system of actions will be organized by the future technology teachers: the ability to feel the novelty, feel the creative environment, re-form the structural structure of the object, positively assessment, belief in one's own strength and capabilities, possession of a sense of love for beauty, associative movement from one problem to another, striving to find similarities between separate elements (ideas), indirectly understanding one idea expressing in different interpretations, accepting one's own and others' imaginative, new and unusual ideas, having a highly positive attitude towards uncertain and complex situations, showing constructive activity in uncertain and complex situations [3]. It is known that the quality and practical value of any research are evaluated based on certain criteria.

The leading theoretical ideas of the research aimed at developing the methodological competence of future students in technology classes, the results of pedagogical observation, as well as the general description of the research, confirmed the feasibility of evaluating its quality and practical value according to the following criteria:

- Perfection
- Harmony of content and form
- Uniqueness
- Completeness
- Having an emotional-aesthetic effect
- Ability to satisfy existing emotional and aesthetic needs
- Possession of practical value

There is an important process in the organization of scientific research, which is the development of criteria and level indicators that allow assessing the level of formation of theoretical knowledge or practical skills in students selected as respondents according to the program recommended for testing. . When developing criteria and level indicators, the theoretical principles defining the solution of the selected problem and the main signs manifested in the behaviour of the respondent students are taken into account. Accordingly, it is required that the criteria and level indicators should be able to reflect the general nature of the research process.

- Creativity is the possession of qualities
- Unique creativity and the ability to justify ideas
- Possessing the ability to approach activities based on creativity
- Ability to create creative research

During the period of conducting the research, based on the didactic possibilities of the "Technology" lessons, the cases of understanding, practical-active and reflexive-evaluation of future teachers' methodological competence, the qualification of substantiating unique ideas and

the ability to create research are low, medium. and it was decided that a high level of development was necessary to confirm that the research was effective. According to this decision, the level indicators representing the development of methodological competence of future teachers in "Technology" classes were set as follows:

1) high level- creativity has qualities and consistently improves them;

- original creativity can justify ideas;
- can approach activities based on creativity;
- can create creative studies with complex solutions;

2) middle level- tries to master creativity consistently;

- if not thoroughly grounded, inherent creativity tends to promote ideas, as well as to approach activities based on creativity;
- can create creative studies with sometimes uncomplicated solutions

3) low level - creativity tries to master qualities;

- tends to come up with creative ideas, although sometimes not well-founded;
- has difficulty in approaching the activity, so the effort to create creative research does not produce the expected result.

Conclusion

In conclusion, it can be said that future teachers of technological education have certain qualities determined by diagnostic methods and tools. Diagnostic methods and tools must be effective. However, when diagnosing a person's possession of certain qualities, first of all, clearly defining the criteria and level indicators that provide the possibility to assess its existence or development helps to organize the pedagogical-psychological activities correctly and rationally and to evaluate the results objectively. Therefore, it is important to establish the criteria for evaluating the possession of certain qualities in future technology teachers.

References

1. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "On the strategy of actions for the development of Uzbekistan in 2017-2021" No. PF-4947. *Collection of documents of the Law of the Republic of Uzbekistan*, T., 2017. p. 37.
2. Muslimov N.A. (2007). Theoretical and methodological foundations of professional formation of teachers of vocational education. Tashkent.
3. Muslimov N.A., Ko'ysinov O.A., Abdurakhmanov Sh., Abdullaeva Q.M., Gaipova N.S. (2014). Technologies of formation of methodical competence of future vocational education teachers. *Methodical guide*. T.
4. Hamidov J.A. (2017). Technology of creation and application of modern didactic teaching tools in the training of future vocational education teachers. *Tashkent*.
5. Holmurzaev, A. A., Madaminov, J. Z., Rahmonov, D. M., & Rasulzhonov, I. R. (2019). Metodika razvitija professional'noj kompetentnosti informacionno-tehnicheskikh sredstv budushhih uchitelej cherchenija. *Aktual'naja nauka*, 4, 112-115.
6. Muxtoraliyeva, R. M., Nosirjonovich, O. Z., & Zafarjonovich, M. J. (2020). Use of graphics computer software in the study of the subject "Drawing and engineering graphics". *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(5), 83-86.
7. Холмурзаев, А. А., Алижонов, О. И., Мадаминов, Ж. З., & Каримов, Р. Х. (2019). Эффективные средства создания обучающих программ по предмету «Начертательная геометрия». *Проблемы современной науки и образования*, (12-1 (145)), 79-80.

8. Madaminov, J. Z. (2020). Methods of developing students' design competencies in the discipline "Engineering and computer graphics". *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(5), 66-71.
9. Khusanbaev, A. M., Madaminov, J. Z., & Oxunjonov, Z. N. (2020). Effect of radiation on physical-mechanical properties of silk threads. *Theoretical & Applied Science*, (5), 209-212.
10. Kholmurzaev, A. A., Alijonov, O. I., & Madaminov, J. Z. (2020). Effective tools and solutions for teaching "Drawing-geometry and engineering graphics". *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(5), 58-61.
11. Toshqo'zieva, Z. E., Nurmatova, S. S., & Madaminov, J. Z. (2020). Features of using innovative technologies to improve the quality of education. *Theoretical & Applied Science*, (5), 213-217.
12. Muslimov, N. A., & Madaminov, J. Z. (2020). Methods for improving the qualifications of future curriculum teachers using information technology. *Scientific-technical journal of FerPI*, 24(1), 177.
13. Holmurzaev, A. A., Alizhonov, O. I., Madaminov, Z. Z., & Karimov, R. H. (2019). Jefferktivnye sredstva sozdaniya obuchajyshhih programm po predmetu "nachertatel'naja geometrija". *Problemy sovremennoj nauki i obrazovaniya*, (12-1 (145)).
14. Мадаминов, Ж. (2021). Бўлажак муҳандисларни лойиҳалаш компетенцияларини компьютер графикаси воситасида ривожлантириш методикасини такомиллаштириш. *Общество и инновации*, 2(8/S), 462-469.
15. Мадаминов, Ж. (2021). Муҳандисларни лойиҳалаш компетенцияларини шакллантиришда "муҳандислик ва компьютер графикаси" фанини ўрни. *Общество и инновации*, 2(4/S), 633-638.
16. Madaminov, J. (2021). The actual problems and solutions of the development of engineering design competencies. *Збірник наукових праць SCIENTIA*.
17. Усманов, Д. А., Арзиев, С. С., & Мадаминов, Ж. З. (2019). Выбор геометрических параметров коков колково-планчатого барабана. *Проблемы современной науки и образования*, (10 (143)), 27-29.
18. Холмурзаев, А. А., Мадаминов, Ж. З., Рахмонов, Д. М., & Расулжонов, И. Р. (2019). Методика развития профессиональной компетентности информационно-технических средств будущих учителей черчения. *Актуальная наука*, (4), 112-115.
19. Мадаминов, Ж. (2021). Evaluation of the results of pedagogical experiments and tests of development of design competencies of future engineers with computer graphics. *Збірник наукових праць ЛОГОΣ*.
20. Zafarzhonovich, M. J. (2021). Model of a pedagogical system for developing design competence for future engineering using a computer grafika. *Middle European Scientific Bulletin*, 17, 97-101.
21. Алижонов, О., & Мадаминов, Ж. (2021). Муҳандисларнинг компьютер графикаси воситасида лойиҳалаш компетенцияларини ривожлантириш бўйича тажриба-синов ишларини ташкил этиш. *Общество и инновации*, 2(6), 195-207.